

Measurement properties of instruments assessing Aphasia impact on social participation: A COSMIN systematic review.

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Background: Aphasia is a language disorder that significantly limits a person's social participation. Patient-reported outcome measures (PROMs) of social participation play an important role in clinical practice to identify activity limitations and participation restrictions. Even though PROMs of the impact of aphasia on social participation are used to measure this aspect, their suitability is unclear. It is crucial that these PROMs demonstrate adequate measurement properties, such as validity, reliability and responsiveness for the intended population. Additionally, people with aphasia are excluded from research due to communication deficits. However, their involvement during assessment tool development is crucial to construct high-quality assessments.

Objective/s: The objective of this study is to critically appraise and summarize the measurement properties of instruments assessing the impact of aphasia on social participation using COSMIN criteria, to map the domains of instruments that assess the impact of aphasia on social participation against the social participation domains framework introduced by the ICF and to compare the measurement properties of the included instruments that are created with and without direct patient involvement.

Methods: The study protocol was developed with adherence to the statement of PRISMA-P, and the study was registered in PROSPERO (CRD-384044). A comprehensive electronic search was conducted in MEDLINE, EMBASE, CINAHL Plus, PsycINFO, AMED, and Web of Science Core Collection databases, and a secondary search was performed in Web of Science and Google Scholar. Studies on the development and testing measurement properties of instruments assessing the impact of aphasia on social participation were included in this review. The quality of evidence regarding measurement properties of the selected tools, including risk of bias, was evaluated against COSMIN criteria.

Results: Four articles featuring three instruments (Community Integration Questionnaire (CIQ), Social Activities Checklist (SOCACT), and Stroke Social Network Scale (SSNS)) assessing the impact of aphasia on social participation were identified. The quality of evidence for 'CIQ' development, reliability, and construct validity were 'satisfactory'. The quality of evidence for 'SSNS' PROM development was 'low- very serious risk of bias'. However, 'satisfactory' evidence was reported for construct validity. CIQ and SOCACT instruments showed good face validity. Compared to other instruments, SSNS reported satisfactory involvement of persons with aphasia during instrument development. The quality of evidence for internal consistency was only evaluated for two instruments due to a lack of evidence. There was no evidence for content validity, measurement error, measurement invariance, criterion validity and responsiveness.

Conclusion/s: Instruments that exclusively measure the impact of aphasia on social participation have limited evidence of measurement properties. Further work is required to update and investigate the missing

measurement properties of these instruments. Based on the available evidence, the Community Integration Questionnaire can be recommended to measure the impact of aphasia on social participation.

Key words: *Aphasia, Social participation, Patient-reported outcome measures, Measurement properties, Systematic review*